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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,766	11/26/2003	Klaus Klingenberg-Regn	P03,0471	9678

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SCHIFF HARDIN, LLP
PATENT DEPARTMENT
6600 SEARS TOWER
CHICAGO, IL 60606-6473

EXAMINER

LAMPRECHT, JOEL

ART UNIT	PAPER NUMBER
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3737

MAIL DATE	DELIVERY MODE
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10/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/723,766

Applicant(s)

KLINGENBECK-REGN ET AL.

Examiner

Joel M. Lamprecht

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The Examiner acknowledges receipt of Applicant's amendments and remarks regarding the original rejection. The Examiner also withdraws the statements made about convention priority. Applicant's arguments with respect to claims 1-18 have been considered but are moot based on new grounds of rejection. The Examiner would first mention that Aldefeld et al. do acknowledge in paragraph 23 that an X-ray system is not required, but should be available and could potentially be utilized should the procedure require its use (paragraph 38). They do not; however, concern themselves with applying X-ray monitoring as the primary or even preferred form of monitoring, rather they teach away from that method and only rely on it intraoperatively in emergency cases.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aldefeld et al. (US 6,813,512) in view of Pitris et al (US 6,564,087 B1). Aldefeld discloses all that is listed above substantially a medical examination system comprising a device for taking a scout image including an x-ray [0026], a

processing device for generating a scout image [0037-0039], a catheter system associated with OCT image acquisition [0029], the capacity to display the x-ray and OCT images together (superimposed) [0037-0039], whereby the system can integrate and generate both x-ray and OCT images [0027-0035 and 0023] [0018], the catheter containing a magnetic field-generating element in its tip [0030], and generates an external magnetic field surrounding the catheter [0021], along with controls for the magnetic field and external magnetic field [0018-0021], a permanent magnet in the catheter tip [0030], generating a magnetic field outward from the catheter itself and in tandem with another external electromagnet [0030].

2. As acknowledged by Examiner, Aldefeld et al do mention that X-ray systems can be used in emergency cases, but they do not specify the image processing, or motion monitoring via X-ray as an intraoperative method. Attention is then paid to Pitris et al, which discloses a visualization module and X-ray-based monitoring system in conjunction with an OCT catheter configured for introduction into the body. Pitris et al also disclose a system, which can intraoperatively image and monitor, on a single device, the OCT and x-ray image for guiding the procedure. The system of Pitris et al also mentions combining or simultaneously displaying the OCT and other imaging modalities (including X-rays) for real-time guidance of the probe (Column 18 Line 50 – Column 19 Line 40). It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the intraoperative X-ray and imaging methods of Pitris with the OCT system of Aldefeld et al. in non-emergency cases for the purpose of guiding the interventional procedure.

A reference cited sheet for the Pitris et al reference is not enclosed due to the fact that Pitris et al reference was listed in the previous office action as pertinent prior art.

3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aldefeld et al. (US 6,813,512) in view of Hastings et al. (US 20020103430 A1) and in further view of Pitris et al (US 6,564,087 B1).

4. Aldefield or Pitris do not disclose a magnetic field generator to interact with the catheter to move the catheter within the examination region, supplying multiple magnets on the catheter for generating orthogonal representations of the area to be imaged, or controls for multiple electromagnets on the catheter itself. Attention is then directed to the secondary reference by Hastings et al. which teaches the implementation of a three electromagnet design which substantially produces two orthogonal fields, one along the longitudinal axis and one across the catheter itself [0037-0039, 0042]. The catheter taught is capable of being moved and navigated by use of an external magnetic field and contains controls for adjusting the properties of each electromagnet in the catheter [0042-0044] [0036]. It would have been obvious to one having ordinary skill in the art to have included the multi electromagnet system and translocation system taught by Hastings et al. in the medical examination system of Aldefield to allow for automatic placement of the catheter imaging system to ensure the best possible images are obtained.

Conclusion

Art Unit: 3737

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

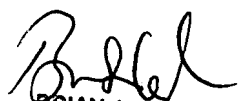
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joel M. Lamprecht whose telephone number is (571) 272-3250. The examiner can normally be reached on Monday-Friday 7:30AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3737

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JML
9/29/07


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